CLAIMS

1. A method of transmitting information between first and second electronic devices, the method including generating a validator file operable to validate or to not validate eXtensible Markup Language, XML, files according to their structure, transmitting to the second device the validator file itself or information to enable the validator file to be acquired by the second device, generating an XML file which contains the information to be transmitted structured in such a way that it is validatable by the generated validator file, transmitting the XML file to the second device and validating the XML file received by the second device, wherein the validator file is generated by:

acquiring and parsing an example XML file, the XML file having a structure which the validator file to be generated should cause to be validated, to generate a tree structured file comprising a root node and one or more subsidiary nodes each of which corresponds to an element within the example XML file and has an associated child and attribute list which contain the names of zero or more children nodes and zero or more attributes respectively;

acquiring and parsing any additional example XML files to generate corresponding additional tree structured files;

traversing the or each tree structured file to generate an intermediate structure comprising groups of nodes in which, each time a node is encountered which does not have the same name as any previously encountered node, a new group is created in the intermediate structure and one or more details of the node in question are stored in the group, and each time a node is encountered which does have the same name as any previously encountered node its child and attribute lists are compared with those of the or each previously encountered node having the same name and if there is a match, no further entry is made in the group, but if there is a mismatch, then a new entry comprising one or more details of the node is made within the same group as the previously encountered node of the same name; and

generating the validator file based upon the intermediate structure.

2. A method according to claim 1 wherein the or each tree structure is a Document Object Model (DOM) tree.

3. A method according to claim1 or claim 2 wherein the validator file is a Document Type Definition, DTD, file or an XML schema definition file.

4. A method according to any preceding claim wherein the intermediate structure and the groups forming the intermediate structure are Java objects, and wherein the details of a node stored in a group are a reference to a Java object representing the node in one of the one or more tree structured files.

5. A method according to any preceding claim further including the step of the second device automatically processing the received XML file upon successful validation by the validator file.

6. A method of generating a validator file operable to validate or to not validate eXtensible Markup Language, XML, files according to their structure, comprising:

acquiring and parsing an example XML file, the XML file having a structure which the validator file to be generated should cause to be validated, to generate a tree structured file comprising a root node and one or more subsidiary nodes each of which corresponds to an element within the example XML file;

acquiring and parsing any additional example XML files to generate corresponding additional tree structured files;

traversing the or each tree structured file to generate an intermediate structure comprising groups of nodes in which, each time a node is encountered which does not have the same name as any previously encountered node, a new group is created in the intermediate structure and one or more details of the node in question are stored in the group, and each time a node is encountered which does have the same name as any previously encountered node its child and attribute lists are compared with those of the or each previously encountered node having the same name and if there is a match, no further entry is made in the group, but if there is a mismatch, then a new entry comprising one or more details of the node is made within the same group as the previously encountered node of the same name; and

generating the validator file based upon the intermediate structure.

7. A method of communicating information between two or more devices within a distributed environment, the method comprising:

each device receiving example XML files from each other device with which it is to share information representative of the data which each other party intends to send to the respective device;

utilising these received XML files, in combination with one or more XML files representative of the data which the respective device intends to send to the other parties, to generate a validator file which is operable to validate all of the utilised XML files; and

using the validator files to validate any received or transmitted XML files communicated between the devices.

8. A method according to claim 7 in which information is communicated between three or more devices.

9. A system for transmitting information between first and second computers, the system including the first and second computers together with a computer network connecting the computers together, wherein the first computer is operable to generate a validator file operable to validate or to not validate eXtensible Markup Language, XML, files according to their structure, to transmit to the second computer the validator file itself or information to enable the validator file to be acquired by the second computer, and to generate an XML file which contains the information to be transmitted structured in such a way that the XML file is validatable by the generated validator file, and wherein the first computer includes means for transmitting the XML file to the second computer over the computer network and wherein the second computer includes means for validating the XML file upon receipt using the validator file, wherein the first computer includes means for generating the validator file by:

acquiring and parsing an example XML file, the XML file having a structure which the validator file to be generated should cause to be validated, to generate a tree structured file comprising a root node and one or more subsidiary nodes each of which corresponds to an element within the example XML file and has an associated child and attribute list which contain the names of zero or more children nodes and zero or more attributes respectively;

acquiring and parsing any additional example XML files to generate corresponding additional tree structured files;

traversing the or each tree structured file to generate an intermediate structure comprising groups of nodes in which, each time a node is encountered which does not have the same name as any previously encountered node, a new group is created in the intermediate structure and one or more details of the node in question are stored in the group, and each time a node is encountered which does have the same name as any previously encountered node its child and attribute lists are compared with those of the or

each previously encountered node having the same name and if there is a match, no further entry is made in the group, but if there is a mismatch, then a new entry comprising one or more details of the node is made within the same group as the previously encountered node of the same name; and

generating the validator file based upon the intermediate structure.

10. A system for transmitting information between first and second computers, the system including the first and second computers together with a computer network connecting the computers together, wherein the first computer is operable to generate a validator file operable to validate or to not validate eXtensible Markup Language, XML, files according to their structure, to transmit to the second computer the validator file itself or information to enable the validator file to be acquired by the second computer, and to generate an XML file which contains the information to be transmitted structured in such a way that the XML file is validatable by the generated validator file, and wherein the first computer is further operable to transmit the XML file to the second computer over the computer network and wherein the second computer is operable to validate the XML file upon receipt using the validator file, wherein the first computer is operable to generate the validator file by:

acquiring and parsing an example XML file, the XML file having a structure which the validator file to be generated should cause to be validated, to generate a tree structured file comprising a root node and one or more subsidiary nodes each of which corresponds to an element within the example XML file and has an associated child and attribute list which contain the names of zero or more children nodes and zero or more attributes respectively;

acquiring and parsing any additional example XML files to generate corresponding additional tree structured files;

traversing the or each tree structured file to generate an intermediate structure comprising groups of nodes in which, each time a node is encountered which does not have the same name as any previously encountered node, a new group is created in the intermediate structure and one or more details of the node in question are stored in the group, and each time a node is encountered which does have the same name as any previously encountered node its child and attribute lists are compared with those of the or each previously encountered node having the same name and if there is a match, no further entry is made in the group, but if there is a mismatch, then a new entry comprising

one or more details of the node is made within the same group as the previously encountered node of the same name; and

generating the validator file based upon the intermediate structure.

11. A computer program or suite of computer programs for causing a computer or computers to carry out the method or method steps of any of claims 1 to 8 during execution.

12. A carrier medium carrying the computer program or programs of claim 11.